

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group
Art Unit: Unknown

Attorney
Docket No.: SHC0151

Applicant: Yoshinori Kumasaka et al.

Invention: ELASTICALLY STRETCHABLE
DISPOSABLE DIAPER

Serial No: Unknown

Filed: Herewith

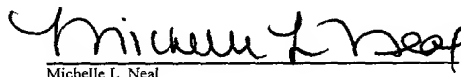
Examiner: Unknown

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20231.

on October 11, 2001


Michelle L. Neal

PRELIMINARY AMENDMENT

Box: Patent Application
Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Prior to the examination of the above-identified application, please amend the application
as follows:

IN THE SPECIFICATION

Please replace the last paragraph beginning on page 2 and continuing on page 3 with the
following:

- -It is an object of this invention to provide elastically stretchable disposable pants made
of elastically stretchable sheet members designed so that the pants can be smoothly pulled up to
a desired level at which the pants are properly worn.- -

Please replace the second full paragraph on page 3 with the following:

- -According to this invention each of substantially inelastic guide zones are provided

between the longitudinal axis and each of the side edges of the front and rear waist regions, extending longitudinal of the pants between vicinity of a peripheral edge portion of the waist-opening and vicinity of each of the leg-openings.- -

Please replace the third full paragraph on page 3 with the following:

- -According to one embodiment of this invention, the sheet members comprise layers of elastically stretchable fibrous nonwoven fabric and the nonwoven fabric is molten and solidified so that the guide zones have substantially no elastic stretchability.- -

Please replace the last paragraph beginning on page 3 and continuing on page 4 with the following:

- -According to another embodiment of this invention, the sheet members comprise layers of elastically stretchable fibrous nonwoven fabric and inelastic strips of sheet are bonded to the guide zones with the nonwoven fabric being not stretched so that the guide zones have substantially no elastic stretchability.- -

Please replace the first full paragraph on page 4 with the following:

- -According to still another embodiment of this invention, a pad member comprising a liquid-pervious topsheet, a liquid-impervious backsheet and a liquid-absorbent core disposed between the top- and backsheets is attached to the inner surface of the pants and extend from the front waist to the rear waist region.- -

Please replace the second full paragraph on page 4 with the following:

- -According to further another embodiment of this invention, the pants comprise a liquid-pervious topsheet, a liquid-impervious backsheet and a liquid-absorbent core disposed

between the top- and backsheets and extending from the front waist region to the rear waist region and wherein at least the backsheet of the top- and backsheets is formed with the sheet members.- -

Please replace the first full paragraph on page 12 with the following:

- -Fig. 3 is a sectional view taken along a line A - A in Fig. 1 and Fig. 4 is a sectional view taken along a line B - B in Fig. 2. Of the pad member 3, transversely opposite side edge portions 8a of the topsheet 8 and transversely opposite side edge portions 9a extend outward beyond transversely opposite side edges 10a of the core 10. The side edge portions 9a are folded back along the side edges 10a of the core 10 toward the outer surface of the topsheet 8. The fixed side edge portions 11a of the respective cuffs 11 are disposed between the side edge portions 8a and side edge portions 9a, respectively, and bonded to the inner surfaces of these side edge portions 8a, 9a. The longitudinal opposite fixed end portions 11c of the respective cuffs 11 are bonded to the outer surface of the topsheet 8 (See Fig. 2).- -

Please replace the last paragraph beginning on page 13 and continuing on page 14 with the following:

- -The pants 20 comprise a liquid-pervious topsheet 21 made of an elastically stretchable hydrophilic fibrous nonwoven fabric, a liquid-impervious backsheet 22 made of an elastically stretchable hydrophobic fibrous nonwoven fabric and a liquid-absorbent core 23 disposed between the top- and backsheets 21, 22 and entirely covered with and bonded to tissue paper (not shown). Alternatively, it is possible to use a laminated composite sheet consisting of elastically stretchable hydrophobic fibrous nonwoven fabric and elastically stretchable plastic film as stock material for the backsheet 22.- -

Please replace the last paragraph beginning on page 18 and continuing on page 19 with the following:

--The disposable pants according to this invention includes first and second lateral waist regions that are formed at locations put aside toward at least one of the front and rear waist regions with the substantially inelastic guide zones arranged in the longitudinal direction. Movement of the guide zones in the longitudinal direction causes the region extending in the vicinity of these guide zones to move in the longitudinal direction. The front and rear waist regions also are pulled up following the movement of the guide zones as the first and second lateral waist regions are pulled up to wear the pants, so the front and rear waist regions can be pulled up together with the lateral waist regions to the desired level without any anxiety that the front and rear waist regions might remain below the first and second lateral waist regions. In this way, the pants can be more smoothly pulled up to the desired level around the wearer's waist.--

IN THE CLAIMS

Please amend Claim 1 as follows:

1. (Amended) Elastically stretchable disposable pants having a central longitudinal axis and comprising:

a pair of elastically stretchable sheet members;

a front waist region;

a rear waist region opposed to said front waist region;

a waist-opening and a pair of leg-openings defined by joining said front and rear waist regions at edge portions thereof to each other; and

substantially inelastic guide zones provided between said central longitudinal axis and each of said side edges of said front and rear waist regions, and extending longitudinal of said

pants between a vicinity of a peripheral edge portion of said waist-opening and a vicinity of each of said leg-openings.

Please amend Claim 2 as follows:

2. (Amended) The pants according to Claim 1, wherein said pair of elastically stretchable sheet members comprise layers of elastically stretchable fibrous nonwoven fabric and said guide zones comprise portions of said nonwoven fabric which are molten and solidified so as to have substantially no elastic stretchability.

Please amend Claim 3 as follows:

3. (Amended) The pants according to Claim 1, wherein said pair of sheet members comprise layers of elastically stretchable fibrous nonwoven fabric and said guide zones comprise inelastic strips of sheet material that are bonded to said nonwoven fabric so that said guide zones have substantially no elastic stretchability.

Please amend Claim 4 as follows:

4. (Amended) The pants according to Claim 1, wherein a pad member comprising a liquid-pervious topsheet, a liquid-impervious backsheet and a liquid-absorbent core disposed between said liquid-pervious topsheet and said liquid-impervious backsheet is attached to an inner surface of said pants and extends from said front waist region to said rear waist region.

Please amend Claim 4 as follows:

5. (Amended) The pants according to Claim 1, wherein said pants comprise a liquid-pervious topsheet, a liquid-impervious backsheet and a liquid-absorbent core disposed between said liquid-pervious topsheet and said liquid-impervious backsheet and extending from said front

waist region to said rear waist region, and of said liquid-impervious backsheet and said liquid-previous topsheet at least said liquid-impervious backsheet is formed from said pair of sheet members.

Please amend Claim 6 as follows:

6. (Amended) The pants according to Claim 1, wherein each of said substantially inelastic guide zones is located aside toward said side edge portions of said front and rear waist regions.

Please amend Claim 7 as follows:

7. (Amended) The pants according to Claim 4, wherein each of said substantially inelastic guide zones is located in a vicinity of said pad member.

IN THE ABSTRACT

Please amend the Abstract as follows:

- -Elastically stretchable disposable pants that include first and second lateral waist regions, which are formed in at least a front waist region with substantially inelastic guide zones arranged intermittently in the longitudinal direction. The pants thus constructed can be smoothly pulled up to a desired level at which the pants are properly worn.- -

• • • R E M A R K S • • •

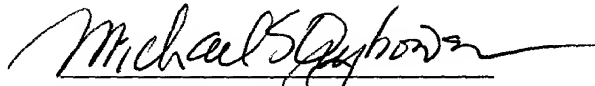
By the present Preliminary Amendment, the specification, claims and abstract have been revised to more clearly describe applicants' invention in accordance with the requirements of 35 U.S.C. § 112.

Care has been taken so as to avoid the addition of new matter in the specification and claims.

Entry of the present Preliminary Amendment prior to the examination of the application is respectfully requested.

In the event applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, applicants hereby petition therefor and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Respectfully submitted,


Michael S. Gzybowski
Reg. No. 32,816

BAKER & DANIELS
111 East Wayne Street
Suite 800
Fort Wayne, Indiana 46802
(219) 460-1661

MSG/mln/202058

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Changes Made to Specification Paragraphs

The last paragraph beginning on page 2 and continuing on page 3 has been amended as follows:

It is an object of this invention to provide elastically stretchable disposable pants made of elastically stretchable sheet members [improved] designed so that the pants can be smoothly pulled up to a desired level at which the pants are properly worn.

The second full paragraph on page 3 has been amended as follows:

[The improvement according] According to this invention [is in that] each of substantially inelastic guide zones [being] are provided between the longitudinal axis and each of the side edges of the front and rear waist regions, extending longitudinal of the pants between vicinity of a peripheral edge portion of the waist-opening and vicinity of each of the leg-openings.

The third full paragraph on page 3 has been amended as follows:

According to one [preferred] embodiment of this invention, the sheet members comprise layers of elastically stretchable fibrous nonwoven fabric and the nonwoven fabric is molten and solidified so that the guide zones have substantially no elastic stretchability.

The last paragraph beginning on page 3 and continuing on page 4 has been amended as follows:

According to another [preferred] embodiment of this invention, the sheet members comprise layers of elastically stretchable fibrous nonwoven fabric and inelastic strips of sheet are

bonded to the guide zones with the nonwoven fabric being not stretched so that the guide zones have substantially no elastic stretchability.

The first full paragraph on page 4 has been amended as follows:

According to still another [preferred] embodiment of this invention, a pad member comprising a liquid-pervious topsheet, a liquid-impervious backsheet and a liquid-absorbent core disposed between the top- and backsheets is attached to the inner surface of the pants and extend from the front waist to the rear waist region.

The second full paragraph on page 4 has been amended as follows:

According to further another [preferred] embodiment of this invention, the pants comprise a liquid-pervious topsheet, a liquid-impervious backsheet and a liquid-absorbent core disposed between the top- and backsheets and extending from the front waist region to the rear waist region and wherein at least the backsheet of the top- and backsheets is formed with the sheet members.

The first full paragraph on page 12 has been amended as follows:

Fig. 3 is a sectional view taken along a line A - A in Fig. 1 and Fig. 4 is a sectional view taken along a line B - B in Fig. 2. Of the pad member 3, transversely opposite side edge portions 8a of the topsheet 8 and transversely opposite side edge portions 9a extend outward beyond transversely opposite side edges 10a of the core 10. The side edge portions 9a are folded back along the side edges 10a of the core 10 toward the outer surface of the topsheet 8. The fixed side edge portions 11a of the respective cuffs 11 are disposed between the side edge portions 8a and side edge portions 9a, respectively, and bonded to the inner surfaces of these side edge portions 8a, 9a. The longitudinal opposite fixed end portions 11c of the respective cuffs 11 are bonded

to the outer surface of the topsheet 8 (See Fig. 2).

The last paragraph beginning on page 13 and continuing on page 14 has been amended as follows:

The pants 20 comprise a liquid-pervious topsheet 21 made of an elastically stretchable hydrophilic fibrous nonwoven fabric, a liquid-impervious backsheet 22 made of an elastically stretchable hydrophobic fibrous nonwoven fabric and a liquid-absorbent core 23 disposed between the top- and backsheets 21, 22 and entirely [cover] covered with and bonded to tissue paper (not shown). Alternatively, it is possible to use a laminated composite sheet consisting of elastically stretchable hydrophobic fibrous nonwoven fabric and elastically stretchable plastic film as stock material for the backsheet 22.

The last paragraph beginning on page 18 and continuing on page 19 has been amended as follows:

The disposable pants according to this invention [is characterized in that the] includes first and second lateral waist regions that are formed at locations put aside toward at least one of the front and rear waist regions with the substantially inelastic guide zones arranged in the longitudinal direction. Movement of the guide zones in the longitudinal direction causes the region extending in the vicinity of these guide zones to move in the longitudinal direction. The front and rear waist regions also are pulled up following the movement of the guide zones as the first and second lateral waist regions are pulled up to wear the pants, so the front and rear waist regions can be pulled up together with the lateral waist regions to the desired level without any anxiety that the front and rear waist regions might remain below the first and second lateral waist regions. In this way, the pants can be more smoothly pulled up to the desired level around the wearer's waist, [than the pants of well known art can be.]

Changes Made to Claims

Claim 1 has been amended as follows:

1. (Amended) Elastically stretchable disposable pants having a central longitudinal axis and comprising:

[being made of] a pair of elastically stretchable sheet members;

a front waist [region:] region;

a rear waist region opposed to said front waist region;

a waist-opening and a pair of leg-openings defined by joining said front and rear waist regions [jointed] at [said] edge portions thereof to each other; and

[each of] substantially inelastic guide zones [being] provided between said central longitudinal axis and each of said side edges of said front and rear waist regions, and extending longitudinal of said pants between a vicinity of a peripheral edge portion of said waist-opening and a vicinity of each of said leg-openings.

Claim 2 has been amended as follows:

2. (Amended) The pants according to Claim 1, wherein said pair of elastically stretchable sheet members comprise layers of elastically stretchable fibrous nonwoven fabric and said guide zones comprise portions of said nonwoven fabric [is] which are molten and solidified so [that said guide zones] as to have substantially no elastic stretchability.

Claim 3 has been amended as follows:

3. (Amended) The pants according to Claim 1, wherein said pair of sheet members comprise layers of elastically stretchable fibrous nonwoven fabric and said guide zones comprise inelastic strips of sheet material that are bonded to [said guide zones with] said nonwoven fabric

[being not stretched] so that said guide zones have substantially no elastic stretchability.

Claim 4 has been amended as follows:

4. (Amended) The pants according to Claim 1, wherein a pad member comprising a liquid-pervious topsheet, a liquid-impervious backsheet and a liquid-absorbent core disposed between said [top- and backsheets] liquid-pervious topsheet and said liquid-impervious backsheet is attached to [the] an inner surface of said pants and [extend] extends from said front waist region to said rear waist region.

Claim 5 has been amended as follows:

5. (Amended) The pants according to Claim 1, wherein said pants comprise a liquid-pervious topsheet, a liquid-impervious backsheet and a liquid-absorbent core disposed between said [top- and backsheets] liquid-pervious topsheet and said liquid-impervious backsheet and extending from said front waist region to said rear waist region, and of said liquid-impervious backsheet and said liquid-previous topsheet [and wherein] at least said [backsheet] liquid-impervious backsheet [of said top- and backsheets] is formed [with] from said pair of sheet members.

Claim 6 has been amended as follows:

6. (Amended) The pants according to Claim 1, wherein each of said substantially inelastic guide zones is located aside toward [each of] said side edge portions of said front and rear waist regions.

Claim 7 has been amended as follows:

7. (Amended) The pants according to Claim 4, wherein each of said substantially inelastic guide zones is located in a vicinity [of each] of said pad member.

Changes Made to Abstract

The Abstract has been amended as follows:

[Disclosed elastically] Elastically stretchable disposable pants that include first and second lateral waist regions, which are formed in at least a front waist region with substantially inelastic guide zones arranged intermittently in the longitudinal direction. The pants thus constructed can be smoothly pulled up to a desired level at which the pants are properly worn.

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Attorney
Docket No.: SHC0151

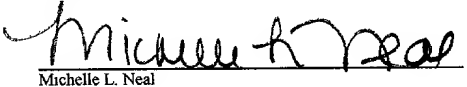
Applicant: Yoshinori Kumasaka et al.

Invention: ELASTICALLY STRETCHABLE
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} Michelle L. Neal

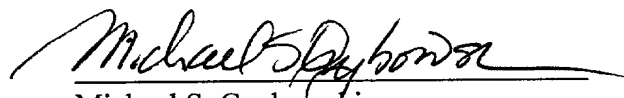
REQUEST FOR APPROVAL OF DRAWING AMENDMENTS

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Approval is requested of the change to Figure 3 as indicated in red on the attached drawing sheet.

Respectfully submitted,


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FIG.3

